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Boss 5650.² No evidence of variability has so far been found for H. D. 42474, although the other stars mentioned are known to be slightly variable.³

M. L. HUMASON.

²*Ibid.*, **33**, 263, 1921.

³A letter from Dr. Shapley, Director of the Harvard College Observatory, received since the above was written, states that H. D. 42474 is also slightly variable.

THE NEBULAR LINE λ 4658 IN STELLAR SPECTRA

The importance of finding the interpretation of the unidentified spectrum lines of gaseous nebulae is so great that even fragmentary observations tending to aid in their classification or to assist in any way in determining the conditions under which they arise may be worth publishing.

The purpose of this note is to call attention to the presence of the nebular line λ 4658.2 in the spectrum of objects which in most respects are quite unlike.

The circumstances of the occurrence of this line in nebulae may be learned from Wright's memoir in Volume XIII of the *Publications of the Lick Observatory*. In general it is associated with λ 4363, but IC 4997 appears to form an exception, as λ 4658 was not observed in this object, although λ 4363 was found to be very strong.

λ 4658 occurs as a bright line in R *Aquarii*,¹ R. A. 1900, 23^h38^m.6, and in D M. — 12°5045, R. A. 1900, 18^h20^m.0, being associated with other bright lines as indicated below:

R <i>Aquarii</i> , Class Md + P	D M.—12°5045, Class Bp
H	H
He	He
3869 (1) Nebular	4658.2 (4)
3967* (1—) "	4701.5 (2)
4068* (1) "	4733.6 (1)
4363 (6) "	4769.7 (1)
4658 (2) "	
4959 (15) "	
5007 (30) "	

D M. — 12°5045, mag. 8.5, Class Bp, was discovered to possess a bright H α line by Mr. Humason from an objective-prism

¹*These Publications*, **32**, 247, 1920.

*Observed on a spectrogram secured with the 71inch camera on August 13, 1921. On this plate there is also something resembling a bright line at λ 4701.5. This may correspond to the line found at this place in D M. — 12°5045, although in R *Aquarii* it may be merely a maximum of the banded continuous spectrum which is faintly visible.

photograph. Two slit spectrograms with the 18-inch camera upon which the above notes concerning this star are based, were secured by him in August, 1921.

λ 4658 may have occurred in the spectra of novæ, but it seems not to have been recognized with certainty owing, perhaps, to its low intensity or to the confused character of this spectral region. Certain maxima in the spectrum of *T Coronæ* in 1921 have been identified by Lundmark² with the nebular lines $\lambda\lambda$ 4363, 4658.

January 24, 1922.

PAUL W. MERRILL.

SUMMARY OF MOUNT WILSON MAGNETIC OBSERVATIONS OF SUN-SPOTS FOR JANUARY AND FEBRUARY, 1922

Although the mean number of groups observed daily, 1.3 in January and 2.1 in February, showed no particular increase, the mean daily spotted area for February was above the average of the past few months on account of several large groups of considerable size which appeared during the last half of that month. There were five spotless days in January and four in February.

The most interesting group magnetically was No. 1944, which was the largest and most stable bipolar of irregular polarity ever recorded.

²*Ibid.*, **23**, 271, 1921.